PATENT ABSTRACTS OF JAPAN

(11)Publication number :   05-201073

(43)Date of publication of application : 10.08.1993

(51)Int.Cl.	B41J 5/30
	B41J 29/38
	G06F 3/12

(21)Application number : 03-318771

(22)Date of filing :   03.12.1991

(71)Applicant : NEC ENG LTD

(72)Inventor :   JOGO YUZO

(54) PRINTER

(57)Abstract:

PURPOSE: To make it possible to utilize preserved data in other method than printing by storing data received from a host device in an external memory device, and eliminate interruption of data transmission from the host device to a printer by storing the data received from the host device in the external memory device at the time that record media run out.

CONSTITUTION: A memory means 7 stores data received from a host device. A print means 3 prints the data received from the host device or the data from the memory means 7. Further, in a control means 1, storing of the data received from the host device to the memory means 7 is controlled and switching output of said received data and the data received from the memory means 7 to the print means 3 is controlled by signals from instruction means 4-6. As a result, data in an external memory device can be preserved in other method than printing and data transmission from the host device to a printer can be performed without interruption even when record media or recording agent run out.
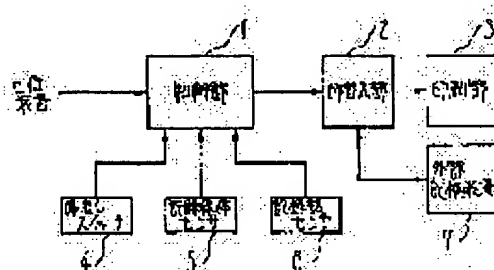
CLAIMS

[Claim(s)]

[Claim 1] The printer a printer is characterized by to have a storage means store received data from high order equipment, a printing means print received data from said high order equipment, or data from said storage means, and a control means that performs a change output control to said printing means of storing control to said storage means of received data from said high order equipment, said received data, and data from said storage means with a signal from a directions means.

[Claim 2] It is the printer according to claim 1 which said directions means is swept out and is a switch, and is characterized by said control means performing an output control to said printing means of data of said storage means when [this] it sweeps out and a switch is pushed.

[Claim 3] It is the printer according to claim 1 or 2 characterized by performing control which said directions means is a sensor of a record medium and a record agent which detects one of existence at least, and said control means suspends [control] data output to said printing means with a nothing condition detection signal from said sensor, and there is [control], and makes data output to said printing means resume with a condition detection signal.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application] Especially this invention relates to the control system of a printer about a printer.
[0002]
[Description of the Prior Art] It was only printing the data received from high order equipment, and the conventional printer was not able to receive the data from high order equipment, when record agents, such as a time of a record medium being lost, and a toner, an ink ribbon, were lost.
[0003]
[Problem(s) to be Solved by the Invention] By this conventional printer, since received data were not saved when, as for the data received from high order equipment, printing processing ended, there was a trouble of not being reusable. Moreover, when the condition that there was no record medium or record agent of a printer occurred while high order equipment transmitted data, it stops having received the printer, data transmitting processing of high order equipment interrupted the data after it, and there was a trouble of reducing the processing effectiveness of high order equipment.
[0004]
[Means for Solving the Problem] A printer of this invention is equipped with a storage means store received data from high order equipment, a printing means print received data from said high order equipment, or data from said storage means, and a control means that performs a change output control to said printing means of storing control to said storage means of received data from said high order equipment, said received data, and data from said storage means with a signal from a directions means.
[0005] And when [this] it sweeps out and a switch is pushed, even if it sweeps out said directions means and it is a switch, and said control means performs an output control to said printing means of data of said storage means Moreover, said directions means is a sensor of a record medium and a record agent which detects one of existence at least. Said control means may perform control which data output to said printing means is suspended [control] with a nothing condition detection signal from said sensor, and it is [control], and makes data output to said printing means resume with a condition detection signal.
[0006]
[Example] Next, this invention is explained with reference to a drawing. Drawing 1 is the block diagram showing one example of the printer of this invention. This example is equipped with the record agent sensor 6 which sweeps out and detects the existence of the switch 4 and the record-medium sensor 5 which detect the existence of the record medium of a printer it directs that output the data which external storage 7 stores in the control section 1 connected with high order equipment, the change section 2 which changes the received data from high order equipment to the printing section 3 and external storage 7 with directions of a control section 1, and is outputted, and a control section 1 to the printing section 3, and the record agent of a printer.
[0007] Then, actuation of this example is explained. A control section 1 changes the received data from high order equipment according to the set-up contents, and outputs them to the printing section 3 or external storage 7 through the section 2. Moreover, when data is stored in external storage 7, a control section 1 performs the directions to which the data stored in external storage to the change section 2 is made to output to the printing section 3 by sweeping out and carrying out the depression of the switch 4.
[0008] Next, the record-medium sensor's 5 detection of that the record medium was lost sends a data-medium-less signal to a control section 1. A control section 1 is directed in the change section 2 based on this signal, and makes the received data from high order equipment store in external storage 7. If a record medium is filled up, the record-medium sensor 5 will send a signal with data medium to a control section 1. A control section 1 checks that storing in the external storage 7 of the received data from high order equipment has been completed, directs it in the change section 2, and makes the data in external storage 7 output to the printing section 3.
[0009] Moreover, the record agent sensor's 6 detection of that the record agent was lost sends a record-agent-less signal to a control section 1. A control section 1 is directed in the change section 2 based on this signal, and makes the received data from high order equipment store in external storage 7. If a record agent is filled up, the record agent sensor 6 will send a signal with a record agent to a control section 1. A control section 1 checks that storing in the external storage 7 of the received data from high order equipment has been completed, directs

it in the change section 2, and makes the data in external storage 7 output to the printing section 3.

[0010] In addition, a control section 1 directs a data transmitting halt to high order equipment, when a data-medium-less signal or a record-agent-less signal is received, and when a signal with data medium or a signal with a record agent is received, it may control it to make the data transmission from high order equipment resume.

[0011]

[Effect of the Invention] As explained above, since this invention memorized the data received from high order equipment to external storage, it can use conservation data by methods other than printing. Moreover, since the received data from high order equipment were memorized to external storage when the record medium was lost, interrupting data transmission to the printer from high order equipment is lost. Furthermore, since the data from high order equipment was memorized to external storage when the record agent was lost, it has the effect that interrupting the data transmission to a printer from high order equipment is lost.

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing one example of the printer of this invention.
[Description of Notations]
1 Control Section
2 Change Section
3 Printing Section
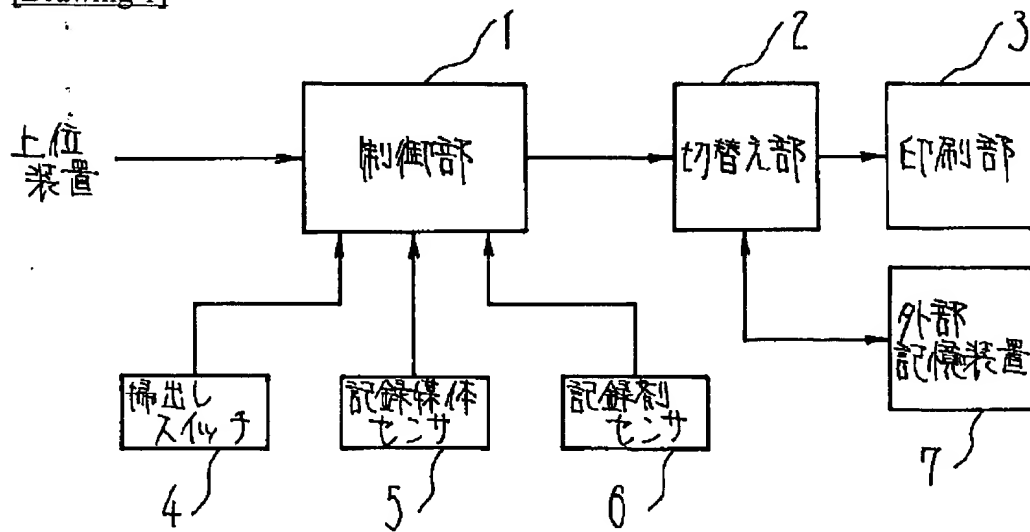4 Sweep Out and it is Switch.
5 Record-Medium Sensor
6 Record Agent Sensor
7 External Storage

[Translation done.]

DRAWINGS

[Drawing 1]

上位装置 → 制御部(1) → 切替え部(2) → 印刷部(3)
切替え部(2) → 外部記憶装置(7)
帳出しスイッチ(4) → 制御部
記録媒体センサ(5) → 制御部
記録剤センサ(6) → 制御部

[Translation done.]